April 2008

Facilitating Scientific Research with Library Services: A Case Study of the IPR Library

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Library Philosophy and Practice 2008

ISSN 1522-0222

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Introduction

Scientific communication has changed because of rapid advances in information technology, which has also changed the pace of scientific developments. Traditional information services are no longer sufficient to meet researchers' complex needs and expectations. Librarians have the challenge of striking a balance between the enormous growth in scholarly literature and technological advancements in information technology (Congress on Professional Education).

The Institute

The Institute for Plasma Research (IPR) was founded in 1982 and is a premiere physics research institute of the Department of Atomic Energy, Government of India. Its research is in a very specialized subject field, plasma physics, also known as the fourth state of matter.

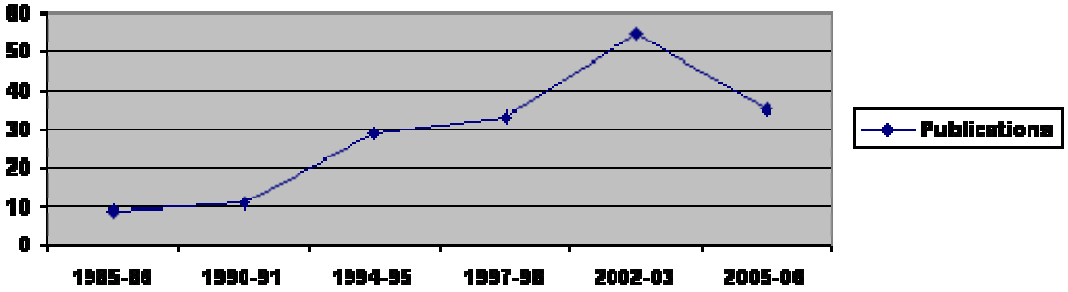
IPR is involved in various aspects of plasma science, including basic plasma physics, magnetically-confined hot plasmas, and plasma technologies for industrial applications. Apart from basic research, the institute is building a Steady State Superconducting Tokamak (SST-1). IPR is now the Indian representative of the International Thermonuclear Experimental Reactor (ITER) (IPR Annual Reports).

Community and Information Needs

IPR's user community includes scientists, engineers, and researchers involved in plasma science and engineering. Their information requirements are complex and varied (US Dept of Energy).

IPR Library

IPR has a state-of-the-art library. It provides guidance to other libraries. The rich collection, versatile staff, innovative services, soothing ambience, and atmosphere of intellectual freedom provide an environment that is conducive to scientific research. The success of a research institution can be measured by its output of scholarly publications. The chart below shows the growth of scientific publications at IPR.



Growth in Scientific Publications

The Role of Librarians

The research librarian is crucial to the research process in any organization.

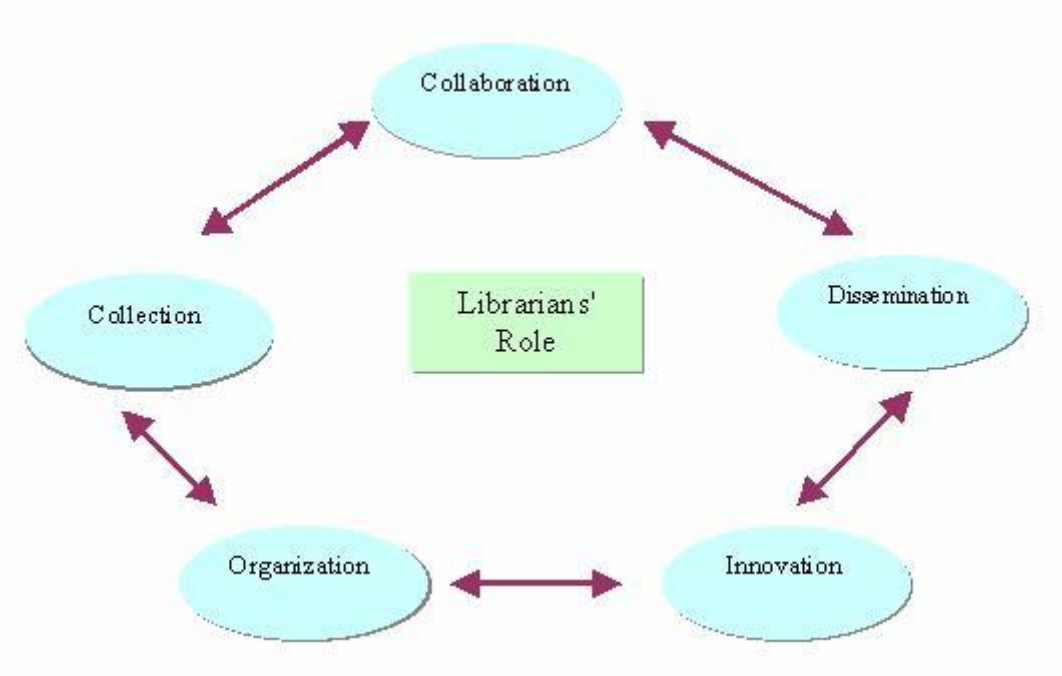


Figure 1: Librarians' Role

Collaboration

No library is sufficient to meet the needs of all researchers, and must collaborate with others.

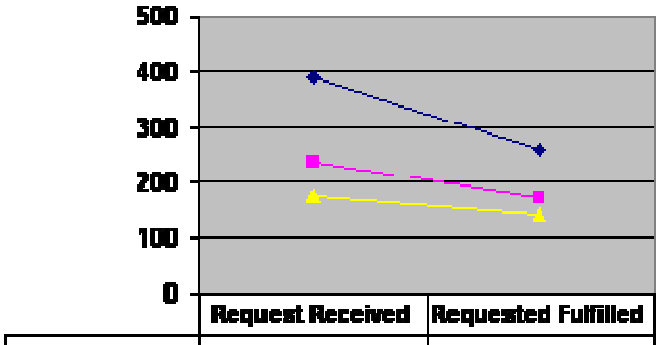
Collaboration with other Libraries

We collaborate with other libraries through Inter-Library Loan. Apart from the local libraries like Physical Research Laboratory (PRL), Space Applications Center (SAC), Dhirubhai Ambani Institute of Information Technology and Communication Technology (DA-IICT), Ahmedabad Textile Industry's Research Association (ATIRA), etc., we also co-operate with other major Indian research libraries such as Bhabha Atomic Research

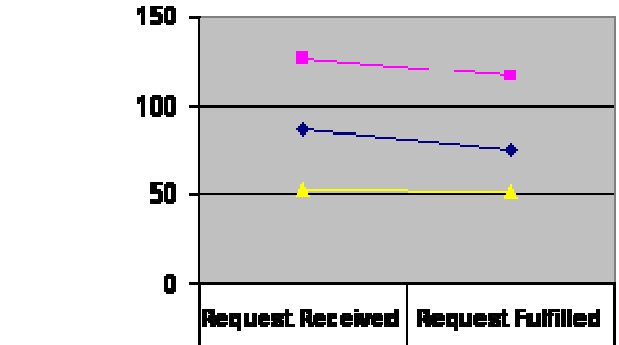
Centre (BARC), CAT, Tata Institute of Fundamental Research (TIFR), Indian Institute of Technology (IIT), etc. to meet our information requirements.

The chart below shows recent statistics.

Statistics:



	Request Received	Requested Fulfilled
2003-04 S.L. 66.83%	389	260
2004-05 S.L. 72.15%	237	171
2005-06 S.L. 81.92%	177	145



	Request Received	Request Fulfilled
2003-04 S.L. 87.20%	86	75
2004-05 S.L. 91.34%	127	116
2005-06 S.L. 98.11%	53	52

S.L.= Satisfaction Level

ILL Requests provided to users and ILL requests sought by other libraries

Collaboration with Publishers/Vendors

Collaboration with publishers and vendors is essential, because they are a good source of information. We collaborate with journal publishers, book vendors and digital/online information suppliers to get the latest information resources in the field.

We arrange books exhibitions at the Institute by inviting vendors to exhibit their publications so that our scholarly community can select books to enrich the library's collection. We also arrange online product demonstrations, e.g., Elsevier's SCOPUS, to make users aware of products, contents, search capabilities, etc.

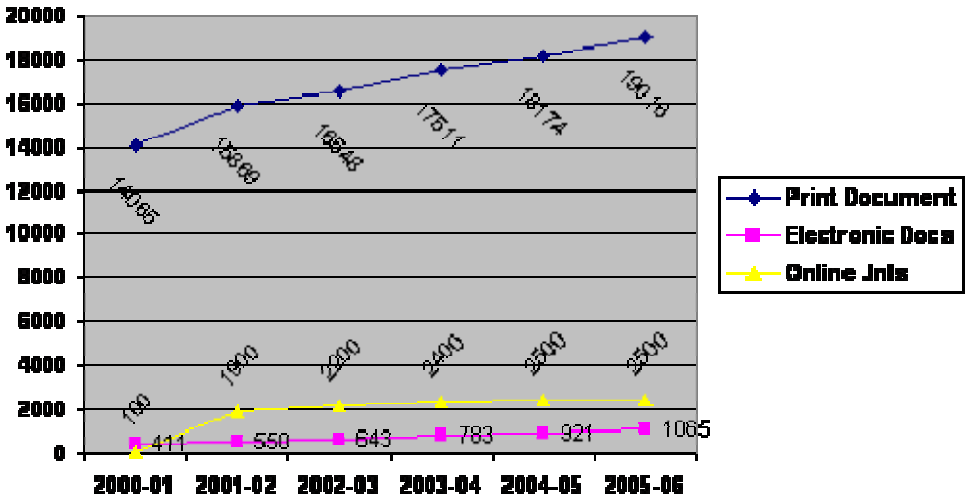
Collaboration with Computer Center

The computer center plays an important role in any research institution, and collaboration with the computer center is important for uninterrupted user services.

Collection

The library is a growing organism, and Ranganathan's fifth law of library science is pertinent here. The total collection is more than 32,000 volumes, which includes books, bound volumes, and reports. We ensure systematic collection development by selecting resources judiciously. We have more than 1,100

e-documents in the form of CDs, DVDs and floppy disks. Access to e-journals beginning in 1998-99 was a great boon to the scientific community, but it was access to ScienceDirect through DAE Consortium beginning in 2001-2002, which presently gives access to more that 2,200 e-journals, has had a huge impact. It has allowed the scholars to swim in the ocean of scholarly literature.



Growth in Library Collection

Organization

Well-organized collections are the foundation for library services. Librarians are uniquely equipped to organize information resources. "Every Reader his/her Book" and "Every Book its Reader," the second and third laws of library science, are applied here. We organize information resources to connect the user with information without delay. The standard techniques of cataloguing and classification are followed to make documents easily accessible. Orientation services and library guides help users maximize usage.

Innovation

With advancements in information technology and proliferation of electronic information sources, librarians can innovate by manipulating the electronic information to make it more usable. We have ways of allowing the researcher to use information directly in the research process. One example is the repackaging of information in alert services, as well as customization. For example, the ScienceDirect User Guide was customized to meet our users' particular needs. We have digitized local knowledge resources such as preprints, reprints, theses and dissertations, etc., to provide online access.

Dissemination

Systematic dissemination of information is a key element in the success of any library. Understanding the research process of an organization is important for effectively disseminating appropriate information. In the IPR Library, information is disseminated in print and electronic form, although most information is disseminated online. The user gets almost all informtion both as bibliographic citations and as full text, through a single platform. Information is disseminated both in anticipation and on demand.

The Library has designed a comprehensive website that serves as a gateway to plasma information. It provides links to the OPAC, electronic journals, local resources, web resources, etc. The resources are classified and arranged in such a way that the user is easily connected to the information. The library website gets heavy use from the scientific community. Figure 2 shows how the different resources are integrated.

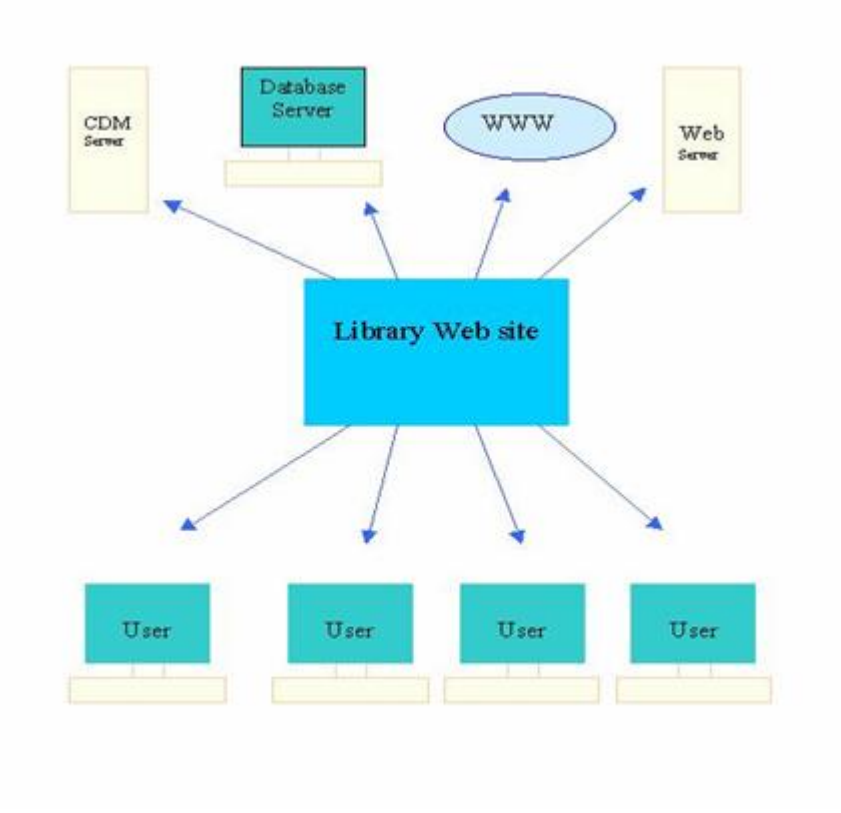


Figure 2. Screen Shots of IPR Library Website


IPR Library - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://www.ipr.res.in/~saroj/LIBRARY.html
Go Links
IPR Home
आई पी आर पुस्तकालय
Institute for Plasma Research Library
IPR Library was set up in the year 1982. It was housed in PRL, Ahmedabad campus until 1986. From April 1986 onwards it has shifted to its present location.
The Library is stretched out in about 8000 sq. ft. area. The primary objective of the library is to support the scientific and technical programmes of the institute by providing physical and intellectual access to information, keeping with the present and the anticipated scientific and technical functions of the institute. In accordance with the objectives of the institute, the library aims to develop a comprehensive collection of documents useful for the Scientific and the Technical community of the institute. IPR Library is well equipped with all the modern IT tools to meet the complex information needs of the Scientific Community.
Friday, June 30, 2006
Quick links
GO
Library Hours:
MONDAY to FRIDAY - 9:00 AM to 8:00 PM
SATURDAY - 10:30 AM to 5:30 PM
ITER -FAQ:
IPR Library
About Library
Library Committee and Staff
Library Guide
Library Photographs
Catalogue
Library Catalogue (OPAC)
SearchCatalogue
British Library Catalogue
IISc Library
e-Resources@IPR
Full-Text Journals
Preprints
CD Mirror Server (Intranet)
Thesis (IPR) Added
Other Libraries
TIFR
CAT
IGCAR
PRL

Conclusion

We are continuously trying to enhance our knowledge and create new and innovative services to contribute more effectively to the research output of the organization. Our role has been recognized by the IPR administration, who provide encouragement and support the environment that is needed to explore creative ideas and new dimensions of information dissemination.

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